

P a t e n t c l a i m s

5 1. An apparatus for heat treatment of tissue specimens, comprising a pressure cooker (1) for cooking of the tissue specimens, a temperature sensor (5) and a pressure sensor (6) connected to the pressure cooker, and a control unit (15) for time-controlled heat treatment of the tissue specimens in the pressure cooker (1), **characterised in** that the control unit (15) is arranged to control a programmed step-by-step heating course, 10 with a programmed time duration on each temperature step, from a chosen start temperature up to a chosen maximum temperature.

 2. An apparatus according to claim 1, **characterised in** that it comprises a vent valve (8) coupled to the pressure cooker (1), and that the control unit (15) also is arranged to control a programmed step-by-step cooling course, from the chosen maximum 15 temperature down to a chosen final temperature.

 3. An apparatus according to claim 1 or 2, **characterised in** that the control unit (15) comprises a processor unit which controls the relevant temperature courses by means of a data program.

 4. An apparatus according to one of the claims 1-3, **characterised in** that it 20 comprises a vacuum pump (11) which is connected to the pressure cooker (1) via an electric valve (10), to reduce the pressure in the pressure cooker to a desired value.

 5. An apparatus according to one of the claims 1-4, **characterised in** that the pressure cooker (1) and the control unit (15) are integrated in a treatment apparatus (20) which also is arranged to carry out dewaxing of tissue specimens on microscope slides 25 before the heat treatment in the pressure cooker.

 6. An apparatus according to claim 5, **characterised in** that the treatment apparatus (20) comprises a hot plate (23) for heating of the pressure cooker (1) with the tissue specimens, a revolving unit (25) arranged under the hot plate and comprising a rotatable plate (26) supporting an annular arrangement of vessels (28) for receiving 30 baskets (29) with microscope slides and a loading magazine (30) for baskets, a driving motor for controlled step-by-step rotation of the revolving unit (25), and a hoist device (40) for lifting and lowering of the baskets which are to be transferred from the loading magazine (30) to the individual vessels (28) and from vessel to vessel.

 7. An apparatus according to claim 6, **characterised in** that it includes a heating 35 stove (55) for heating of baskets (29) in the loading magazine (30).